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Application No.: 10/609,310

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REMARKS

Claims 1-5, 7-8, 11-16, 18, 19 and 22-24 were pending in the present application. No claims have been amended or cancelled, and no new claims have been added. Amendment or cancellation of any claims is not a dedication to the public or an abandonment of any unclaimed subject matter. Further, no new matter has been added.

35 U.S.C. §103(a)

Claims 1-5, 7-8, 11-16, 18-19 and 22-24 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,144,523 to Murthy et al. ("Murthy") in view of JP 2002-122134.

The Applicant respectfully disagrees.

The combination of Murthy and JP 2002-122134 does not teach or suggest a device having all of the features recited in independent claims 1 or 13, from which claims 4-5, 7-8, 11-12, 14-16, 18-19 and 22-24 depend. In particular, neither Murthy nor JP 2002-122134 teach or suggest a device having both a first conical bearing integral with a first end of the shaft and asymmetric grooves on the bearings pumping toward the outer ends of the shaft.

The Office Action of September 29, 2006 relies upon Murthy to teach a device having a conical bearing that is integral with an end of the shaft, and bearings that pump towards the outer ends of the shaft. According to the Office Action:

"Murthy discloses an electric motor... comprising a fixed shaft; a first conical bearing integral with a first end of the shaft (fig. 3)... and v-shaped asymmetric (given the conical surface fig. 5B) grooves pumping towards the outer ends of the shaft..." (Office Action of September 29, 2006, page 3).

This characterization is incorrect, as Murthy does not teach a motor having this combination of features, and in fact contrasts motors having these two features as being two separate inventions. The Office Action relies upon the device of FIG. 3 of Murthy to show a

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conical bearing integral to the shaft. The Office Action also relies upon the device shown in FIGS. 4, 5, and 6 to show a device having grooves pumping towards the outer ends of the shaft. However, the device shown in FIG. 3 and the device shown in FIGS. 4, 5, and 6 are separate and distinct inventions, and there is no motivation or suggestion to combine them, and no expectation of success if you were to combine them. As described in more detail below, the integral conical bearing feature of the FIG. 3 invention cannot be used with the direction of pumping shown in the invention of FIGS. 4, 5 and 6 of Murthy, and the direction of pumping shown in FIGS. 4, 5, and 6 of Murthy cannot be used with the integral conical bearing shown in FIG. 3. Thus, there is no *prima facie* case of obviousness over Murthy (even including the JP 2002-122134 reference).

Murthy explicitly describes the device shown in FIG. 3 and the device shown in FIGS. 4, 5, and 6 as two very different inventions, and expressly contrasts these two inventions. The invention shown in FIG. 3 is the subject of a separate patent application (see Murthy, col. 5, lines 50-56). The invention shown in FIGS. 4, 5, and 6 is an improvement over the invention of FIG. 3 (Murthy, col. 5, lines 41-44, and Murthy col. 7, lines 22-26)).

The invention shown in FIG. 3 includes an integral cone region at one end of the shaft, however it does not have a fluid path that pumps fluid towards the outer ends of the shaft, as recited by the Applicant's claims. Instead, the fluid is pumped in exactly the opposite direction, from exit ports at the ends of the shaft, towards a central common reservoir at the center 126 of the shaft. This flow path is described as central to the FIG. 3 invention (col. 5, lines 56-61).

In contrast, the invention shown in FIGS. 4, 5, and 6 does have a fluid pathway directed towards the outer ends of the shaft, but it does not show a first conical bearing that is integral with a first end of the shaft, as recited by the Applicant's claims. Furthermore, the conical bearings of the invention of FIGS. 4, 5, and 6 cannot be integral to the end of the shaft, because the bearings pump fluid completely around the conical bearings, and must pass between the cone region and the shaft. See Murthy col. 6, lines 10-28 ("FIG. 4 shows a [sic] embodiment of the present invention in which the recirculating flow paths are defined around the conical bearings, and do not travel along the central portion 402 of the shaft 400; no reservoir is provided... These paths essentially are defined

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as including these sections, including a gap between the surfaces of each cone 414, 416 and the surrounding sleeve; *a gap between the interior of each cone and the shaft 400*; and a gap between a base or radial surface of each cone and one of sealing plates 421, 422 supported by sleeve 408 adjacent the base of each cone." Emphasis added). FIGS. 6A and 6B provide additional examples of this, showing the separation between the cone (conical bearings) and the shaft, providing a flow path (see col. 6, line 66 – col. 7, line 21).

Thus, the invention of FIG. 3 cannot be combined with the invention of FIGS. 4, 5, and 6. The invention of FIG. 3 would not work if the bearings pump towards the outer ends of the shaft, since the reservoir is accessed through the middle of the shaft. Further, the invention of FIGS. 4, 5, and 6 would not work if one of the conical bearings was integral with an end of the shaft, because this would block the fluid pathway recirculating around the cone. There is no motivation to modify the invention of FIG. 3 of Murthy to incorporate the features of invention of FIGS. 4, 5, and 6 of Murthy. Furthermore, there is no expectation of success if the inventions of FIG. 3 and FIGS. 4, 5, and 6 were so modified.

Finally, JP 2002-122134 cannot cure the deficiencies of Murthy. JP 2002-122134 does not teach or suggest a device having both a first conical bearing integral with a first end of the shaft and asymmetric grooves on the bearings pumping toward the outer ends of the shaft.

Since neither Murthy nor JP 2002-122134 teach or suggest a device having all of the features recited by the Applicant's claims, claims 1-5, 7-8, 11-16, 18-19 and 22-24 cannot be obvious over Murthy in view of JP 2002-122134. Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of claims 1-5, 7-8, 11-16, 18-19 and 22-24 for at least the reasons given above.

### Double Patenting

Claims 1-5, 7-8, 11-16, 18-19 and 22-24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 7,101,085.

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The Applicant respectfully disagrees.

The claims of the pending application are directed towards electric motors having a stationary or fixed shaft. In contrast, the claims of US 7,101,085 are directed towards devices having a rotatable shaft (see, e.g., independent claim 1). Thus, the pending claims are patentably distinct over the claims of US 7,101,085 for at least this reason, and the nonstatutory double patenting rejection is improper. MPEP §804. The Applicant respectfully requests withdrawal of the nonstatutory obviousness-type double patenting rejection of claims 1-5, 7-8, 11-16, 18-19 and 22-24.

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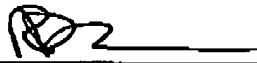
**CONCLUSION**

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 146712016200. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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